

IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Currently Amended): A method for producing reduced iron, comprising:

a feedstock-feeding step of feeding a feedstock containing a carbonaceous reductant and an iron oxide-containing material into a rotary hearth furnace having flow rate-controlling partitions arranged therein for controlling the flow of furnace gas,

a heating/reducing step of heating the feedstock to reduce iron oxide contained in the feedstock into reduced iron,

a melting step of melting the reduced iron,

a cooling step of cooling the molten reduced iron, and

a discharging step of discharging the cooled reduced iron,

these steps being performed in that order in the direction that a hearth is moved,

wherein the furnace gas in the melting step is allowed to flow in the direction of the movement of the hearth from the melting step to the cooling step using the flow rate-controlling partitions, and

wherein the furnace gas in the cooling step is allowed to flow in the direction of the movement of the hearth using the flow rate-controlling partitions, and oxidizing gas is prevented from flowing from the discharging step to the cooling step using the flow rate-controlling partitions.

Claim 2 (Currently Amended): A method for producing reduced iron, comprising:

a feedstock-feeding step of feeding a feedstock containing a carbonaceous reductant and an iron oxide-containing material into a rotary hearth furnace having flow rate-controlling partitions arranged therein for controlling the flow of furnace gas,

a heating/reducing step of heating the feedstock to reduce iron oxide contained in the feedstock into reduced iron,

a melting step of melting the reduced iron,

a cooling step of cooling the molten reduced iron, and

a discharging step of discharging the cooled reduced iron,

these steps being performed in that order in the direction that a hearth is moved,

wherein the furnace gas in the melting step is allowed to flow in the direction of the movement of the hearth from the melting step to the cooling step using the flow rate-controlling partitions, whereby ~~wherein~~ the pressure of the furnace gas in the melting step is maintained higher than that of the furnace gas in other steps ~~using the flow rate-controlling partitions.~~

Claim 3 (Original): The method according to claim 1, wherein the heating/reducing step is partitioned into at least two zones with one of the flow rate-controlling partitions, one of the zones that is located upstream of the other one in the direction of the movement of the hearth has a furnace gas outlet, and the flow of the furnace gas is controlled by discharging the furnace gas from the furnace gas outlet.

Claim 4 (Original): The method according to claim 3, wherein the flow of the furnace gas is controlled in such a manner that the heating/reducing step is partitioned into at least three zones by providing one of the flow rate-controlling partitions at a position that is located upstream of the furnace gas outlet in the direction of the movement of the hearth.

Claim 5 (Previously Presented): The method according to claim 1, wherein at least one of the flow rate-controlling partitions has one or more perforations.

Claim 6 (Previously Presented): The method according to claim 5, including a step of controlling the flow of the furnace gas to allow the furnace gas to flow in the direction of the movement of the hearth by varying a size of the aperture of the one or more perforations.

Claim 7 (Previously Presented): The method according to claim 1, including a step of controlling the flow of the furnace gas to allow the furnace gas to flow in the direction of the movement of the hearth by moving at least one of the partitions vertically.

Claim 8 (Previously Presented): The method according to claim 7, wherein at least one of the flow rate-controlling partitions has one or more perforations and the step of controlling the flow of the furnace gas to allow the furnace gas to flow in the direction of the movement of the hearth also includes varying the aperture of the one or more perforations.

Claims 9-14 (Cancelled).

Claim 15. (Previously Presented) The method according to claim 2, wherein the pressure of the furnace gas in the cooling step is maintained higher than that of the gas in the feeding step using the flow rate-controlling partitions.

Claim 16 (Currently Amended): A method for producing reduced iron, comprising:
a feedstock-feeding step of feeding a feedstock containing a carbonaceous reductant and an iron oxide-containing material into a rotary hearth furnace having flow rate-controlling partitions arranged therein for permitting a controlled flow of furnace gas therepast,

a heating/reducing step of heating the feedstock to reduce iron oxide contained in the feedstock into reduced iron,

a melting step of melting the reduced iron,

a cooling step of cooling the molten reduced iron, and

a discharging step of discharging the cooled reduced iron,

these steps being performed in that order in the direction that a hearth is moved,

wherein the furnace gas in the melting step is allowed to flow in the direction of the movement of the hearth from the melting step to the cooling step using the flow rate-controlling partitions,

wherein the pressure of the furnace gas in the cooling step is maintained higher than that of the gas in the feeding step, and

wherein, due to the higher pressure of the furnace gas in the cooling step, the furnace gas in the cooling step is allowed by the flow rate-controlling partitions to flow in the direction of the movement of the hearth, but oxidizing gas is prevented by the flow rate-controlling partitions from flowing from the discharging step to the cooling step.